Research Issues

- Mediated Communication
  - Human or software
- Coordination of Talk and Action; Convention
- Detailed Cognitive Models of Human Computer-Mediated Collaboration
  - Also models of human to software agent
  - Distribution of knowledge/tasks/representation
- Principled Methods and Tools for:
  - Studying, Modeling, Evaluating, and Building Systems
- Agents
  - Goal/Plan/Context Recognition; Design; Agents on a short leash
- Networking within a community of experts

"Promising" Technology Opportunities for Mediating the Collaboration (that require more scientific study)

- Whiteboard; Chat Rooms; Instant Messaging; Web; Speech Technology; Eye Tracking; Auditory Display
  - How and when to use
- EWall; Graphs as Communication; Coordinating Representations
- Ubiquitous Computing; Mobile Technology; Aware Environments

Significant Underlying Science-Based Theory

- Joint Activity; Common ground (Clark & Brennan)
- Secondary Structures; Convention (Alterman)
- Distributed Cognition (Hutchins, Kirsh)
- Shared plans (Grosz & Kraus; Bratman)
- Conversational Analysis (Goodwin)
- CSCW (Whitaker)
- CSCL (Greeno, Roschelle)
- Cognitive Modeling (Anderson)